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(21) Application number: 01094670

(71) Applicant: FUJI PHOTO FILM CO LTD

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(54) FUNCTIONAL ORGANIC THIN FILM

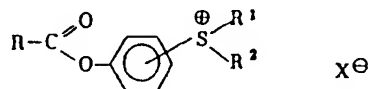
(57) Abstract:

PURPOSE: To provide the title thin film capable of immobilizing thereon in high density a variety of functional compounds such as photosensitive coloring matters, oxidizing and reducing compounds and biologically active proteins, consisting of monomolecular film or cumulated film consisting of amphiphatic organic molecule including specific active ester derivative.

CONSTITUTION: The objective thin film consisting of

monomolecular film or cumulated film consisting of amphiphatic organic molecule including active ester derivative of the formula [R is  $\geq 13$ C aliphatic group (pref.  $\leq 60$ C alkyl or fluoroalkyl);  $R_1$  and  $R_2$  are each alkyl or fluoroalkyl (esp. pref. methyl or fluoromethyl); X is halogen ion, sulfate ion or nitrate ion].

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## Derwent Record

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Derwent Title: **Functional organic thin film - comprising at least one amphoteric organic molecule which is an active phenyl ester deriv.**

Original Title: ☒ **JP02272081A2: FUNCTIONAL ORGANIC THIN FILM**

Assignee: **FUJI PHOTO FILM CO LTD** Standard company  
Other publications from **FUJI PHOTO FILM CO LTD**  
(FUJF)...

Inventor: **None**

Accession/Update: **1990-373620 / 199050**

IPC Code: **B01F 17/20 ; C07C 381/12 ; C09K 3/00 ; C12N 11/02 ; G01N 27/33 ;**

Derwent Classes: **B04; D16; E14; L03; S03; B05;**

Manual Codes: **B04-B02C2**(Oxidoreductases) , **B04-B04A**(Proteins, nucleic acids, cells general) , **B04-B04C**(Antigens, general antibody (pre-94)) , **B10-A01**(1 or 2 ring aromatics and (cyclo) aliphatics with onium (e.g. sulfonium, iodonium) or free radical) , **D05-A01A3**(Industrial fermentation - non-polymeric organic compound carrier) , **D05-H10**(Fixing biological substances or cells to a carrier and the carriers themselves) , **E10-A01**(Aromatic and (cyclo)aliphatic - with onium(s), aminimide, ylid, free radical) , **L03-D01D**(Opto-electronic materials) , **S03-E14H4**(Immunoassay)

Derwent Abstract: (**JP02272081A**) A functional organic thin film consisting of monomolecular film or multilayer of amphoteric organic molecules comprises at least one kind of amphoteric organic molecule which is an active ester deriv. formula (I). In (I), R = 13 or more C aliphatic gp. or fluoroalkyl group; R1 and R2 = alkyl gp. and X = anion gp. EMBODIMENT: Functional guest molecules such as enzyme (e.g. glucose oxidase, amino acid oxidase, etc.), protein (antigen, antibody, etc.), fluorescent dye, etc. can be immobilised in high density on the functional organic thin film, forming functional organic thin film.

USE/Advantage - Optional functional cpd. such as enzyme, protein etc. can be chemically immobilised on the functional organic thin film, and high efficiency chemical reaction or physical change caused by the functional cpd. immobilised on the thin film can be utilised for the formation of sensor image, information recording, energy conversion, etc.

Images:



Dwg. 0/0

Family: PDF Patent Pub. Date Derwent Update Pages Language IPC Code  
☒ JP02272081A \* 1990-11-06 199050 English B01F 17/00  
 Local appls.: JP1989000094670 Filed: 1989-04-14 (89JP-0094670)

Priority Number:

Application Number	Filed	Original Title
JP1989000094670	1989-04-14	FUNCTIONAL ORGANIC THIN FILM

\* Chemical Indexing Codes: [Show chemical indexing codes](#)

\* Markush [Show Markush numbers](#)

Compound Numbers:

\* Registry Numbers:  
 03[M1]: 1327U 0502U  
 01[M2]: 1327U 0502U  
 01[M3]: 1327U 0502U  
 02[M6]: 1327U 0502U

Title Terms: FUNCTION ORGANIC THIN FILM COMPRISE ONE AMPHOTERIC ORGANIC MOLECULAR ACTIVE PHENYL ESTER DERIVATIVE

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